England Telephone and Telegraph Company d/b/a NYNEX, D.P.U. 97-18, Order (Apr 14, 1997 at 10-11.

Third, NYNEX' motivation in preparing the cost study was mixed, to say the least. While the IXCs claim that "NET had no incentive . . . to understate its costs," the DPU Order makes clear that the opposite is the case. At the same time that it proposed the local coin rate increase, NYNEX was being pressured to generally reduce its regulated rates in order to reflect the removal of subsidies for its payphone operations. In the very same order that allowed NYNEX its requested increase, the DPU ordered NYNEX to make a subsequent submission describing how it would reduce other regulated rates to eliminate the exact amount of the subsidy that was indicated by the very cost data NYNEX had submitted in support of the rate increase. Id. at 5-6, 11. Obviously, NYNEX knew that any cost data submitted would be used against it in exactly this way, and also knew that, the higher the level of payphone costs shown in support of the *temporary* local coin rate increase, the larger would be the *permanent* reduction in other rates that would be required as a result. NYNEX had every reason to keep its reported payphone costs to the absolute minimum.[14]

Fourth, although those citing NYNEX's study provide no details on how it was prepared, there is no indication that the study involved imputation of tariffed charges or

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[14] In addressing this point, we do not mean to suggest that regulators should not use the best cost data they can find to determine the extent of LEC payphone subsidies and require that those subsidies be eliminated. However, the fact that one LEC had an incentive not to determine accurately the full extent of its payphone subsidy should not be used to deprive other PSPs of fair dial-around compensation.

fully distributed costing as required by the FCC's accounting rules. In all likelihood, the study was based on an incremental cost analysis, sufficient to justify the requested increase but not sufficient to satisfy the imputation analysis required under the Commission's nonstructural safeguards. The Commission has properly rejected such an approach in this proceeding, both for compensation purposes and subsidy prevention purposes. Payphone Order, ¶¶ 68, 146-49, 199-207.

In short, given the haste with which the study was prepared and the incentives underlying its preparation, the NYNEX cost study cited by the IXCs deserves no credibility at all.

Moreover, even if the data were otherwise credible, NYNEX could not reasonably be used as a "bellwether" provider for purposes of cost-justifying rates for the PSP industry as a whole. The Commission's past "bellwether" policy required that rates be set to "enable a sufficiently large segment of the industry to earn a fair rate of return." Western Union, 25 FCC 535, 581 (1958):

> The question now arises as to what constitutes a "sufficiently large segment of the industry' which should be used as the test or basis for fixing rates. Obviously, it must be a general service carrier or carrier providing all categories of service to all parts of the world, and must have a sufficient volume of traffic and capacity to be able to assure the public of efficient service and adequate facilities.

Contrary to these criteria, NYNEX is strictly a regional PSP. There is no reason to believe that NYNEX' costs are even representative of LEC PSPs in other regions, let alone all PSPs. Further FCC statistics show that NYNEX' New England installed base of

payphone lines has declined about 7% in the last six years, even while its extremely low local coin rates have effectively stunted the growth of NYNEX' competitors. Compare FCC Statistics of Common Carriers, 1989/1990 Edition, Table 2.10, p. 149 (public access lines) with 1995/1996 Edition, Table 2.10, p. 153. Perhaps because of the extremely limited revenue opportunity for payphones in Massachusetts, NYNEX has clearly failed to spend enough to grow its payphone business, and has instead concentrated on the lowest cost locations, contrary to Congressional intent to promote widespread deployment of payphone services.

For all these reasons, NYNEX clearly does not qualify as a "bellwether" payphone service provider. As a regional carrier with declining payphone capacity, caught in the transition from regulated to deregulated, and forced to present a cost study with mixed motivations for a limited transitional purpose, NYNEX fails to satisfy any reasonable criteria for a "bellwether" provider.

To the extent that the "bellwether" provider concept has any applicability to payphone compensation, the Commission must select a carrier with costs that are more likely to be representative of the industry as a whole, and with the demonstrated ability to grow its business. The larger independent PSPs, which have experienced impressive growth and which operate nationwide, are far more likely than NYNEX to satisfy the definition of a "bellwether" carrier. The record, based on actual costs of independent PSPs, including several publicly traded PSPs, indicates that these PSPs have per-call costs in the neighborhood of 35-40 cents per call. Communications Central at 9-10 (34 cents per

call); Peoples at 8-10 (42 cents per call); see also APCC at 15-16 (average of 46 PSPs is 41 cents per call).[15]

An even *better* indicator of "efficient provider" costs is the actual market price for payphone calls with comparable attributable costs, such as local coin calls and 0+ calls. The market rewards efficient providers; therefore, the market price tends to reflect the cost of efficient providers. Accordingly, the most logical and reasonable way to apply the "bellwether" provider concept to today's payphone environment is to adopt the market pricing proposed by the payphone industry. See above.

5. Screening digit code restructuring costs should not be assessed on PSPs

The RBOC Coalition contends that the compensation amount should be sufficient to compensate PSPs for the costs of "restructuring" LEC networks to provide a unique screening digit for "dumb" payphone lines. RBOC Coalition at 17-19. APCC agrees that, *if* LECs are allowed to assess such "restructuring charges" on PSPs, then PSPs are entitled to recover those charges from IXCs' dial-around compensation as part of the cost of originating dial-around calls. However, the Commission should not explicitly or implicitly rule that such charges may be assessed on PSPs.

The problem alluded to by the RBOC Coalition results from LECs historic and ongoing failure to provide "smart" payphones (using "dumb" lines) a screening code that is unique to payphones, even though LECs have always provided their own "dumb"

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[15] As noted above, the average cost per call would increase if increased coin rates caused suppression of demand. See Attachment 1.

payphones (using "smart" lines) with a unique screening code.[16] This discrimination has always disadvantaged independent PSPs in relation to fraud protection, and now it threatens to disadvantage them in relation to payphone compensation as well.[17]

The LECs' failure to provide independent PSPs with a unique screening code is no fault of the independent PSPs. Indeed, APCC has objected to this discriminatory treatment for years. The costs of correcting such discrimination should not be visited on PSPs. Rather, the costs should be treated as general costs of maintaining the network. After all, it is essentially an arbitrary decision by the LECs that results in certain subscribers and not others having one of the allegedly limited supply of screening codes reserved for their use. LECs could have provided the non-unique "07" to their own payphones while providing the unique "27" code to independent providers. Or, LECs could have given "06" to payphones while requiring hotels to share the "07" code with others. Since the allocation of screening codes is a matter that affects all ratepayers, the Commission should ensure that any "restructuring" costs are recovered from the general body of ratepayers.

Another reason why independent PSPs should not be saddled with any of the costs of code "restructuring" is that independent PSPs for years have paid inflated rates for screening service in order to ensure transmission of the inadequate "07" code. As shown

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[16] This historic discrimination continues today. Even though independent PSPs technically are now allowed to attach "dumb" payphones to "smart" lines, the availability of "smart" lines (or "coin" lines) is of little practical value to independent PSPs, for numerous reasons that are described at length in APCC's application for review of the Commission's order approving the RBOCs' CEI plans for payphone services.

[17] However, it does not render per-call compensation infeasible, as some parties claim. See below.

in the tariff proceedings on various LECs charges for screening service, the cost of providing the "07" code is virtually zero. Nonetheless, many LECs historically have charged PSPs four or five dollars per payphone per month in order to obtain this zero-cost service.[18] Therefore, even if LECs' actual costs for code "restructuring" were as high as the RBOC Coalition and USTA claim,[19] no part of that cost should be imposed on independent PSPs. Independent PSPs have been gouged long enough.

Nevertheless, to the extent that any costs of code "restructuring" *are* in fact assessed by LECs on PSPs, PSPs clearly must be entitled to add those costs onto the payphone compensation to which they are otherwise entitled. For example, APCC has shown that -- without including code "restructuring" costs in the computation -- the marginal costs of local coin calls and dial-around calls are roughly equivalent. Therefore, even in the absence of code "restructuring" the FCC should not set the dial-around compensation rate any lower than the local coin rate. If code restructuring occurs and the costs are assessed by LECs on PSPs, then the Commission must provide for those costs to be added to the otherwise applicable dial-around compensation rate.

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[18] More recently, some LECs reduced their charges for this service to one or two dollars per payphone per month. But even this lesser charge is far in excess of actual costs. See, e.g., Local Exchange Carriers' payphone Functions and Features, CC Docket No. 97-140, Order Designating Issues for Investigation, DA97-1764, rel. August 19, 1997.

[19] Given the LECs' history of charging grossly inflated rates for screening service, their costs estimates clearly cannot be taken at face value.

II. INTERIM COMPENSATION

A. The Commission Should Retain Interim Flat-Rate Compensation, Increasing The Rate To Reflect The Higher Number Of Subscriber 800 Calls.

A number of IXCs urge the Commission to scrap its interim flat-rate compensation plan, alleging that it is so "error-ridden" that it is not worth fixing. See, e.g., MCI at 6. Discarding interim compensation would leave PSPs essentially without any dial-around compensation for the eleven-month period. This is obviously contrary to the Congressional intent that PSPs be "fairly compensated for each and every . . . call using their payphone." While the court found fault with a number of aspects of flat-rate compensation, there is no evidence that the court thought it would be either legal or fair to replace a flawed interim compensation plan with an interim non-compensation plan. Yet that is exactly what the IXCs propose.

Although Congress did not set a specific date for compensation to take effect, there is little doubt that Congress intended fair compensation for every call to be implemented as quickly as possible. Congress allowed the FCC only nine months to complete regulations that discontinue LEC payphone subsidies and implement payphone compensation. 47 U.S.C. § 276(b). Further, as discussed in APCC's initial comments, because of the Commission's legal error in the previous compensation proceeding, independent PSPs have been unfairly deprived of any compensation for subscriber 800 calls since 1992.[20] APCC at 21-22. The Commission established interim compensation to

[20] Moreover, a number of existing arrangements for intrastate compensation have been terminated pursuant to the FCC's order. Reconsideration Order, ¶ 73.

address these concerns in part. Terminating interim compensation would unreasonably and unlawfully deprive most independent PSPs of the first compensation they have *ever* received for subscriber 800 calls on which IXCs have been freely generating revenue since the beginning of payphone competition.

Further, as discussed in the initial comments of APCC and others, the IXCs have been raising their rates so as to recover the interim compensation payments from their long distance customers. See also, Attachment 2. Indeed, the IXCs have been *over* recovering from their customers. They continue to use a $1 billion annual figure to justify these rate hikes, when in fact they have already obtained a quarter of a billion dollar access charge reduction at the interstate level alone, to say nothing of comparable amounts at the intrastate level. Id .

Some IXCs base their argument for discarding interim compensation on the legal claim that the interim plan has been vacated by the court of appeals. Comptel at 3-10. APCC believes that the Commission has correctly interpreted the plain language of the IPTA decision as remanding, without vacating, the interim and permanent compensation plans. In the event that, notwithstanding the plain meaning of the decision, the court rules that the interim rate was vacated, APCC will make a supplemental filing addressing the effect that such a ruling should have on interim compensation.

To the extent that the Commission believes that it is required to make changes in the interim compensation plan -- i.e., in response to the court's ruling on the allocation of compensation payments among payers -- the Commission must make those changes

without depriving PSPs of the compensation to which they are entitled by law. Any "true-up" that is needed must be made by exchanges between the affected carriers.[21]

As to the manner in which the interim compensation allocation errors identified by the court should be corrected, Sprint suggests that carriers be required to report the total number of dial-around calls they receive in November 1997 -- the first month of per-call compensation -- and that interim payments be trued up based on each carrier's actual reported call volumes. Sprint at 13.

APCC opposes any recalculation of the overall interim flat-rate compensation for individual PSPs based on subsequently reported call volumes. None of the carriers challenged the Commission's finding as to the average volume of dial-around calls,[22] and the court did not find any error in the flat-rate scheme's allocation of payments among PSPs. Further, PSPs have made business decisions in reliance upon the Commission's

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[21] AT&T argues that any new compensation *rate* should apply retroactively, even if it is lower than the interim compensation rate. While APCC agrees that the Commission has the *authority* to order a retroactive true-up, for the reasons stated in APCC's comments, the equities do not justify a retroactive true-up that would reduce independent PSPs' compensation.

[22] As APCC reported in its comments, Attachment 4, the number of dial-around calls is now higher. The International telecard Association ("ITA") now disputes the number of dial-around calls reported by APCC, claiming that APCC miscounted uncompleted pre-paid calls. However, APCC identified and segregated toll-free calls based on available information, access code, prepaid card and toll-free subscriber calls. APCC defined a completed call by setting an acceptable duration for each type of non-coin call. Calls that were identified as carrier access code, "0+" and prepaid card calls were considered complete at duration of greater than 60 seconds. Only calls that were identified as toll-free subscriber (including both "800" and "888" calls) calls were considered complete at duration of greater than one second. Therefore, the ITA's reasoning is invalid. APCC provided a generous allowance for known prepaid card calls, treating them in the same manner as access code and "0+" calls.

interim flat-rate compensation scheme. Finally, for the reasons stated in APCC's initial comments, equity does not justify *any* retroactive refund of compensation payments lawfully assessed by independent PSPs.

APCC believes the concept proposed by Sprint may be permissible as a retroactive *allocator* of the $45.85 per month flat-rate payment to which PSPs are entitled. However, any reallocation should be based on a better sample of actual call volumes than is likely to be provided by a single month of per-call compensation. In order to ensure that the true-up is not distorted by seasonal variations -- or by any initial individual carrier "glitches" in implementing per-call compensation -- a final true-up should wait until there has been a full year of experience under per-call compensation.

III. OTHER CHANGES IN COMPENSATION ARE UNNECESSARY

A. The Paging Industry's Attempts To Reargue "Carrier Pays" Are Without Merit

The paging industry, whose challenge to the "carrier-pays" method of dial-around compensation was rejected by the court of appeals, nonetheless is attempting to reargue that issue. The paging companies claim that new or "anticipated" evidence shows that carrier blocking of dial-around calls is infeasible. According to the paging companies, this evidence invalidates not only the Commission's findings regarding blocking but also the entire carrier-pays approach.

1. The paging industry's claims about blocking are unsupported

The paging industry argues that "[i]n order for the IXC, on behalf of its subscribers, to block calls on a per-call or per-subscriber basis, at least two pieces of data are necessary." PNI at 6. One is a two-digit code designating the call as one originating from a payphone, and the other is the price charged by each PSP for local/dial-around calls. PNI objects that a "07" code is "not sufficient for purposes of blocking" because it includes non-payphone lines. However, since the other piece of data claimed to be essential is a data base indicating the price charged at each payphone, it is not clear why PNI believes the "07" code to be insufficient. If the purpose is to ensure that PSPs that charge "too much" are blocked, then the necessary information will reside in the data base, not the screening digits. An IXC receiving a "07" code could consult the data base and, if the payphone number was listed with a high price, block calls from that payphone. If there was no payphone listed, then the IXC would not block the call.

Further, while the paging industry claims that no data base has yet been generated for blocking purposes, there is no necessity to generate a data base until such time as per-call compensation is tied to individual providers' prices. This will not happen until the second year of per-call compensation beginning October 1998. IXCs have an additional year to deploy any data base deemed necessary.

Finally, while the paging industry quotes AT&T as stating it will not deploy blocking technology, the Commission has never found that blocking technology necessarily *will be* deployed. As the court noted:

> Although the IXCs protest that they cannot currently recognize overpriced payphones in "real time," see AT&T Reply 4 n.8, they do not argue that they lack the technology to do so. In fact, at oral argument, counsel for the IXCs all but conceded that the relevant technology is currently available. *See* Tr. of Oral Argument at 15-19. We therefore conclude that the FCC's assumption that IXCs have the capacity to "block" calls is reasonable.

IPTA at 15. It is enough that such technology can be deployed if necessary. As long as PSPs do not attempt to charge exorbitant rates for local and dial-around calls (and since the payphone market is competitive, there is no particular reason to expect them to do so), IXCs and their customers may not experience any need to block calls.

The paging industry also claims that they are at the mercy of IXCs who can pass on the costs of dial-around compensation while refusing to deploy blocking technology. This argument assumes that the IXC industry is not competitive. Surely it is far too late in the day to make this argument.

2. The Commission has numerous other reasons for adopting carrier pays

In any event, blocking is one of several factors justifying the adoption of carrier-pays. In addition, the Commission concluded that coin deposits would impose a significant inconvenience on callers,[23] and that carriers and their subscribers are the primary

[23] The Commission correctly ruled that TOCSIA prohibits PSPs from requiring coin deposits on access code calls unless coin deposits are also required on presubscribed operator-assisted (i.e., 0+ calls. Reconsideration Order, ¶ 89. The Commission also correctly found that it is not feasible for PSPs to differentiate within their payphones between subscriber 800 calls and also charging for access code calls. Payphone Order, ¶ 49. Therefore, a requirement for coin deposits on subscriber 800 calls would effectively require a coin deposit on *all* "coinless" calls. There would no longer be any calls that a payphone caller could make without coins.

economic beneficiaries of subscriber 800 calls. Both of these findings were upheld by the Court. IPTA at 21. Further, it is clear that Congressional policy does not favor requiring coin deposits on dial-around calls. See 47 U.S.C. § 226(e)(2). Thus, even if some forms of blocking are not feasible (or even if blocking were not feasible at all), there are numerous sound reasons why the Commission should adhere to a carrier-pays approach to dial-around compensation.

B. A Uniform Compensation Rate Is Not Required

AT&T urges the Commission to adopt a uniform compensation rate, citing primarily the higher costs of administering a rate that varies, e.g., with the price of local coin calls at individual payphones. AT&T at 16-18. APCC believes the Commission should balance the costs of a non-uniform rate against the benefits of tying the compensation rate directly to a market price.[24] While the cited costs associated with a non-uniform rate are higher, they are not exorbitant. The Commission may reasonably decide that the benefits of directly market-based compensation are worth the cost.

IV. IN ADDRESSING INTERIM 0+ COMPENSATION ON REMAND, THE COMMISSION SHOULD ENSURE COMPENSATION FOR ALL PSP'S THAT HAVE BEEN UNABLE TO OBTAIN 0+ COMPENSATION ON A CONTRACTUAL BASIS

For the same reasons stated in the Reply Comments of the Inmate Calling Service Providers Coalition regarding inmate calls, it is reasonable and appropriate for the

[24] Among the benefits are reduced regulatory costs, because the rate need not be continually revisited, and greater efficiency in that more precise market signals may be sent to market participants if dial-around compensation can vary in response to particular market conditions at particular payphone locations.

Commission to allow both RBOC and non-RBOC PSPs to qualify for 0+ interim compensation on the same basis.

CONCLUSION

The Commission should address the court's ruling on remand in accordance with the foregoing reply comments.

Dated: September 9, 1997

Respectfully submitted,

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ATTACHMENT 1

Proforma Analysis of Financial Results

Prepared
By

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Overview: The American Public Communications Council (APCC) requested that I evaluate the impact of an increase in the local coin rate on the financial results of independent payphone providers. I had previously reviewed and analyzed cost data submitted by 46 independent payphone providers (IPPs) and compiled this data for use in the APCC Comments filed in the instant proceeding before the FCC. That survey and the resulting data were included with the APCC's Comments as Attachment 3. Using the calling volume data and financial data from that survey, the results of which are depicted in the first box on the attached study entitled *Proforma Analysis of Financial Results Assuming an Increase in Local Coin Rates*, I developed an analysis of the impact on call volumes and costs assuming an increase in the local coin rate from 25 cents to 35 cents.

Five factors are primarily affected by this change. First, coin calls will decline (repression) due to an increase in the local coin rate. Second, the location commissions associated with repressed calls will be eliminated. Third, location commissions on all calls not repressed will increase due to the increase in the local coin rate. Fourth, local usage charges will decline due to the repressed calling volumes. Fifth, coin collection expenses will increase due to the added number of coins in the collection boxes, but this will be partially offset due to reduced calling volumes. For purposes of this analysis, it is assumed that the two factors offset each other and that there will be no increase in collection costs. This is a conservative assumption because on a monthly basis, assuming 10% repression, the amount of coins deposited will increase from $111.50[2] to $140.35[3]. Assuming 20% repression, the amount of coins deposited will increase from $111.50 to $124.95[4]. Assumptions used to develop the attached study and the results are outlined below.

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[1] Acadian Consulting Group provides financial and economic consulting services to regulatory agencies and private industry throughout the United States. Principles of the firm have been involved in over 170 regulatory proceedings involving telephone, electric, gas, and water and wastewater utilities.

[2] Calculated as follows: local coin calls amount to 446 calls per phone per month, times $.25 per call, equals $111.50.

[3] Calculated as follows: local coin calls assuming 10% repression amount to 401 calls per phone per month, times $.35 per call, equals $140.35.

[4] Calculated as follows: local coin calls assuming 20% repression amount to 357 calls per phone per month, times $.35 per call, equals $124.95.

Call Volumes: It was first necessary to establish the number of coin calls based upon total calls submitted in the original survey. The number of coin calls was developed by taking the ratio of coin calls to total calls obtained from the APCC calling volume study submitted as Attachment 4 to the APCC's Comments. The data was annualized, since only 11 months of data (February through December of 1996) were available in the APCC calling volume study. January calls were estimated by taking the number of coin calls per phone for February of 423, dividing by 29 days to yield 14.59 coin calls per day. This figure was then multiplied by 31 days in January to arrive at 452 coin calls per phone for the month of January. The monthly data was summed and divided by 12 to yield an average of 506 coin calls per phone per month. Next, the ratio of the number of coin calls to total calls (506/705) of 72% was applied to the 689 total calls, per phone per month, obtained from the original survey, to yield 496 coin calls per phone per month. Since roughly 90% of coin calls are local calls, the number of local coin calls were estimated to be 446[5] per phone per month.

Two assumption regarding repression were used to determine the decline in coin calling volumes due to an increase in the local coin rate, 10% and 20%. In other words, assuming a 40% increase in the local coin rate, it was assumed that local coin calling volumes would decrease by 10% to 20%. Under the scenario that local coin calling volumes would decline by 10%, the number of calls per phone per month would decline by 45[6] calls. As depicted in Box 2 of the attached study, multiplying 45 calls per month per phone times the number of phones and 12 months, produced a decline in local coin calls of 51,474,195. Under the scenario that local coin calling volumes would decline by 20%, the number of calls per phone per month would decline by 89[7] calls. As depicted in Box 3 of the attached study, the decline in local coin calls is 101,804,519.

Variable Costs: With the decline in local coin calls, there will also be a reduction in variable expenses. Two categories of expenses were considered variable and affected by this change--local coin usage charges and location commissions. The cost reduction for the first category, local coin usage charges, was estimated by multiplying the change in local coin calling volume times $.03. The APCC had previously determined that local usage charges amount to $.03 per call. As shown under Box 2, this resulted in a cost reduction of $1,544,226 assuming 10% repression and $3,054,136 assuming 20% repression.

The reduction in location commissions was determined by first calculating the percentage of revenue paid to location owners. Based upon the revenue and location commission data submitted by 46 IPPs, commissions were determined to be 21% of total revenue. Applying 21% to the local coin rate of $.35, indicates that commissions will decline by $.07 per lost call. As shown in Box 2, assuming 10% repression, location commissions will decline by $3,603,194; assuming 20% repression, location commissions will decline by $7,126,316.

Location commissions will also increase because of the higher local coin rate. The incremental

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[5]496 coin calls times 90% equals 446 local coin calls.

[6]446 local coin calls times 10% repression equals 45 calls per phone per month.

[7]446 local coin calls time 20% repression equals 89 calls per phone per month.

increase in commissions paid on nonrepressed calls was calculated to be $.02 per call. This is the difference between the commissions paid at $.25 per call of $.05[8] and commissions paid at $.35 per call of $.07[9]. Multiplying the number of nonrepressed calls times the incremental increase in location commissions, yields the increase in location commissions assuming an increase in the local coin rate. As depicted in the attached study, assuming 10% repression, location commissions will increase by $14,722,059, if the coin rate increases to $.35. Likewise, assuming 20% repression, location commissions will increase by $13,715,453, if the coin rate increases to $.35

Results: As shown under the column labeled Proforma Financial Results in Boxes 2 and 3, an IPPs total cost per call will increase from $.41 to $.45 assuming 10% repression and to $.47 assuming 20% repression.

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[8] $.25 local coin rate times 21% of revenue paid to location owners equals $.05 per call.

[9] $.35 local coin rate time 21% of revenue paid to location owners equals $.07 per call.

PROFORMA ANALYSIS OF FINANCIAL RESULTS

ASSUMING AN INCREASE IN LOCAL COIN RATES

Box 1 Survey Results All Companies Weighted Average	Total	Box 2 Proforma Financial Results Assuming 10% Reduction in Local Coin Calls Change In Coin Calls 45	Local Usage Charges Per Call $ 0.03	Reduction In Commissions Per Coin Call $ 0.07	Increase In Commissions Per Coin Call $ 0.02	Proforma Financial Results	Box 3 Proforma Financial Results Assuming 20% Reduction in Local Coin Calls Change In Coin Calls 89	Local Usage Charges Per Call $ 0.03	Reduction In Commissions Per Coin Call $ 0.07	Increase In Commissions Per Coin Call $ 0.02	Proforma Financial Results
1) Number of Phones	95,323					95,323					95,323
2) Fixed Assets											
a) Net Plant and Equipment	$ 233,237,184					$ 233,237,184					$ 233,237,184
3) Total Number of Calls	787,577,159	(51,474,195)				736,102,964	(101,804,519)				685,772,640
4) Expenses (Total Expenses for the Year)											
a) Phone Charges	$ 73,117,479		$ (1,544,226)			$ 71,573,254		$ (3,054,136)			$ 70,063,344
b) Location Commissions	$ 51,268,939			$ (3,603,194)	$ 14,722,059	$ 62,387,805			$ (7,126,316)	$ 13,715,453	$ 57,858,075
c) Other Direct Expenses	$ 52,877,608					$ 52,877,608					$ 52,877,608
d) SG&A	$ 32,641,229					$ 32,641,229					$ 32,641,229
e) Interest Expense/Bank Fees	$ 22,702,728					$ 22,702,728					$ 22,702,728
f) Depreciation Expense	$ 44,112,185					$ 44,112,185					$ 44,112,185
g) Total	$ 276,720,168					$ 286,294,808					$ 280,255,169
5) Total Expenses Per Call	$ 0.35					$ 0.39					$ 0.41
6) Net Investment Per Phone	$ 2,447					$ 2,447					$ 2,447
7) Total Net Investment	$ 233,237,184					$ 233,237,184					$ 233,237,184
8) Rate of Return plus Taxes	18.67%					18.67%					18.67%
9) Return on Investment plus Taxes	$ 43,546,037					$ 43,546,037					$ 43,546,037
10) Expenses Plus Return and Taxes	$ 320,266,205					$ 329,840,844					$ 323,801,206
11) Total Cost Per Call	$ 0.41					$ 0.45					$ 0.47

(1) Call volumes were based upon actual data submitted by each IPP. Where call volume data was not available, an estimate of 705 calls per phone per month was used. This figure was obtained from the SMDR survey conducted by the APCC of 23 companies operating in 32 states, adjusted to estimate January call volumes based upon February volumes adjusted for the difference in the number of days in the month.

(2) Net Investment per phone was estimated for companies which did not provide this information. The estimate was based upon the net investment per phone of all other companies, excluding two outliers.

(3) The rate of return was based upon a capital structure of 75% equity and 25% debt with a cost of equity of 13% and a cost of debt of 12.5%.

(4) Interest Expense has been included in the total expenses plus return amount. It is unclear if interest included on line 4(e) includes interest associated with long-term debt used to finance plant and equipment. If interest expense from line 4(e) is removed from total expenses plus a return and taxes, the cost per call would be $.38

ATTACHMENT 2

CMP

THE NETWORKING NEWSPAPER

CommunicationsWeek

www.commweek.com

August 18, 1997

SOON TO BE INTERNETWEEK

SEE COUNTDOWN COLUMN PAGE 11

VPN Products Square Off

Network managers evaluate trade-offs between functionality and performance

By SALVATORE SALAMONE

In the unfolding war over IP-based virtual private network products, the battle lines pit functionality against performance.

Ascend Communications Inc., Extended Systems Inc. and VP-Net Technologies Inc. last week introduced widely disparate VPN solutions. The only common thread was the promise of saving network and IS managers money on remote access costs.

Ascend, Alameda, Calif., introduced the Pipeline 220, a router that uses new software called SecureConnect to provide firewall, authentication and VPN tunneling capabilities.

Extended Systems, Boise, Idaho, introduced the Extend-Net VPN, a device that replaces a communications server and lets remote Windows 95 or NT users securely access networks using the operating system's built-in dial-up networking capabilities, 40-bit Microsoft Point-to-Point Encryption, and the Point-to-Point Tunneling Protocol (PPTP).

And VPNet, San Jose, Calif., introduced the VSU-1010 VPN Service Unit, a dedicated hardware device that touts Ethernet wire speeds, compliance with IP security protocols, triple-DES encryption, authentication and compression services.

The state of Kansas is using the VSU-1010 to connect offices

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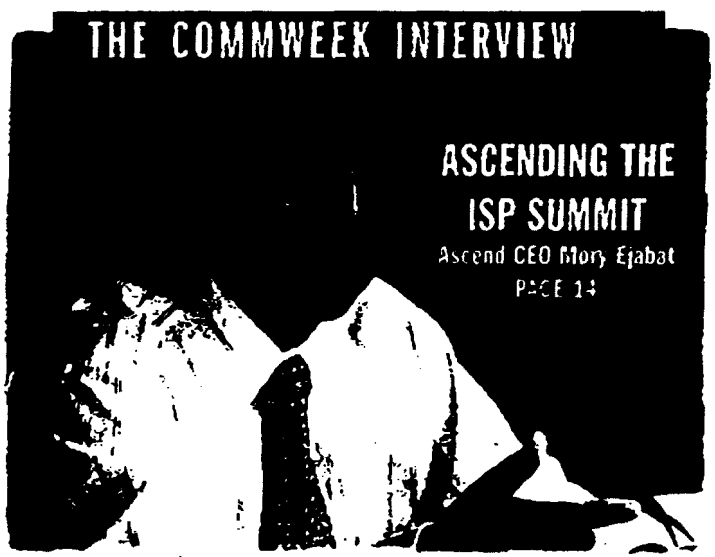

'800' Data Toll Hike Hits Users

By JOHN RENDLEMAN

Call it a glitch. Call it government intervention gone wild. But whatever you call it, large corporate users are paying millions of dollars more for "800" voice and data services.

As strange as it may sound, the higher bills are the direct result of new FCC-ordered fees now being collected by pay-phone operators from long distance carriers for non-coin calls placed from their phones.

The new fees were implemented by the commission during the past nine months to fulfill provisions of the Telecom Act that were designed to foster competition in the pay-phone market. The new rules require

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long distance companies to compensate pay-phone operators for credit-card, operator-assisted, and toll-free "800" and "888" calls placed from pay phones. But the unintended consequence has been rate increases totaling millions of dollars for toll-free calls not placed from pay phones.

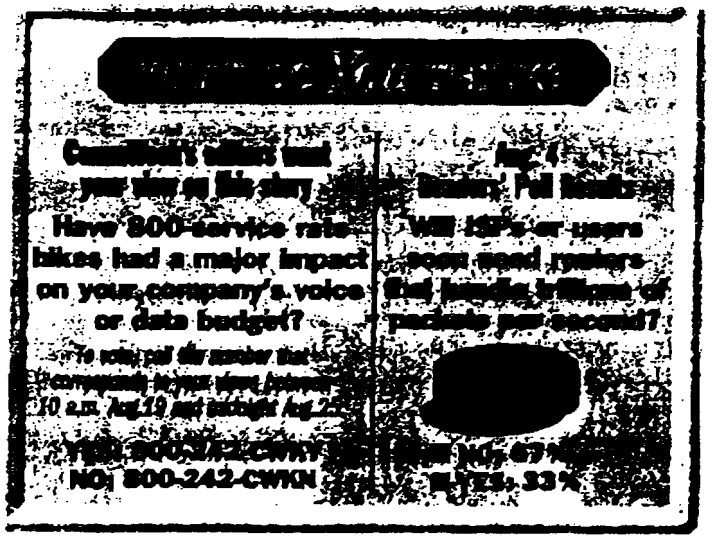
For business customers, the rate increases translate into new telecom expenses, primarily for "800" services used to receive incoming phone calls from customers and employees, as well as data calls from remote workers dialing "800" numbers to access a corporate LAN.

While most network managers declined to reveal the percentages of their budgets spent on inbound and outbound long distance service, many expressed outrage that a law designed to promote greater competition would lead to across-the-board "800" service rate hikes.

AT&T's imperative in the matter was clear. Only a few years ago, the carrier said toll-free traffic accounted for nearly half the volume on its massive long distance network.

The Ins and Outs

The steeper charges are especially troublesome to the many companies that spend more for inbound calls than on outbound long distance, especially since remote data calls, which are rarely made from pay phones, account for a large percentage of inbound "800" calls.



"My feeling is that the pay-phone operators have gone way overboard," said Jonathan Goldblith, senior engineer at Norwest Mortgage Inc., Des Moines, Iowa. "Those companies already make plenty of money from their pay phones, and if I use one at the airport to make an '800' call, then that's too bad."

Smaller companies will be hurt the most by the compensation plan, Goldblith said, in contrast to companies such as Norwest, which has a long-term "800" contract with AT&T that has protected the company from the latest rate increase.

"The problem was that the FCC's compensation rates were exorbitant," said John Cushman, director of toll-free services at AT&T. "Our only option was to increase our rates across the board knowing some customers would be unfairly penalized."

The End Result

As a direct consequence of the new rules, AT&T increased its interstate toll-free "800" business rates by 7 percent and its business outbound rates by 2 percent to recover its share of the payments to pay-phone operators—estimated at nearly $60 million per month for AT&T alone.

MCI Communications Corp. and Sprint also raised their business calling rates to reflect expenses they incurred under the new compensation plan, although their rate hikes were not as large as AT&T's because of their smaller market shares and correspondingly smaller compensation obligations.

MCI responded to the pay-phone fees by raising its "800" service rates twice—once in March and again in May—by more than 3 percent each time. Sprint raised rates for most of its business voice services by about 2 percent in November and again by about 5 percent in March.

Despite the increases, "we believe that we did the right thing," said an FCC official, adding that the commission did not mandate how long distance companies should respond to the new pay-phone fees.

But the commission is in the process of re-examining the process it used to establish the $45.85 monthly fee it authorized pay-phone operators to collect in response to a ruling by a federal appeals court that the monthly charge was "arbitrary."

The $45.85 figure was established using an estimated cost to pay-phone operators of 35 cents per call for each non-coin call transferred to a long distance provider, the FCC source said.

In the meantime, "it's too bad that toll-free calls may no longer be truly toll-free," Norwest's Goldblith said. ■

PAY PHONES' HUGE HIDDEN TOLLS

The FCC's ruling that long distance companies compensate pay-phone operators for non-coin pay-phone calls has been taking its toll on corporate '800' customers during the past nine months.

Date	Fee	AT&T's share	Cost to users
November 1996	$45.85 per month for each of 400,000 independently owned pay phones	$26.21 per phone per month, or approximately $10.5 million per month	7 percent across-the-board rate increase for '800' service, including non-pay-phone voice and data calls, plus a 2 percent increase for outbound business long distance*
April 1997	$45.85 per month charges for each of 1.8 million Bell company-owned pay phones (in addition to above charges)	$26.21 per phone per month, or approximately $47 million per month (in addition to above charges)	
October 1997	35 cents per call for each non-coin pay-phone call received	35 cents per call	Unknown

Source: CommunicationsWeek Chart by Sharon A. Vaglasen

* Effective May 1, 1997

vendor barrage (see chart).

can become three packets," said

traveling on a LAN could be

tion is added the user has "more

Many of these measurements are similar to those used in earlier analog radio systems. However, the nature of today's digital standards—either spread spectrum or time multiplexed—requires more sophisticated spectrum analysis equipment for performing these RF measurements.

The modulation tests on base stations can include phase error, error vector magnitude, time alignment error, waveform quality, code domain power and receiver bit error rate measurements. These tests verify the ability of the base station to send and receive data accurately, and they therefore require more functionality than a typical spectrum analyzer.

Antenna feed line systems also must be tested because their exposure to the elements often can be a source of problems. Water ingress, vandals or even improper installation can result in a dramatic reduction in cell site performance over time. Another external system measurement is spectrum monitoring to determine if signals from other transmitters are causing interference problems.

There is no simple priority list for periodic maintenance or troubleshooting. A damaged antenna feed, a digital radio unit suffering from phase noise or a neighboring transmitter with high spurious signals all can result in reduced coverage area, reduced call capacity or poor call quality.

With requirements for antenna line checks, detailed RF spectrum measurements and modulation measurements, it might appear that three or more pieces of test equipment are required. Fortunately, with the correct instrumentation and outfitting policy, these tests can be performed economically.

Test equipment selection

One strategy to meet these testing needs is to outfit most field teams with Tier 2 test equipment supplemented with Tier 1 equipment. When pursuing this strategy, it may make sense to look for a Tier 2 product that also offers substantial Tier 1 capabilities. Thus, field teams can respond quickly to many modulation or spectrum problems.

An alternate strategy is to separately deploy individual Tier 1 and Tier 2 instruments throughout the field organization. Base station spectrum problems can be captured with the Tier 1 tool, while modulation or signaling problems can be investigated with the Tier 2 tool. Finally, both tools can be brought together to perform periodic maintenance activities.

Although the equipment strategies are different, the qualities that make for a successful tool are not. A dedicated base station tester—a Tier 2 tool—should offer portability, accuracy, a comprehensive suite of tests and automatic setups to conform to published standards. For stand-alone RF spectrum—Tier 1—measurements, the most economic solution is to use the same tool from site survey and microwave relocation phases through to network operation and maintenance.

The appropriate Tier 1 tool, therefore, offers portability, battery power and sensitivity for spectrum monitoring in all location. Additionally, to meet required standards, the instrument should offer built-in measurement routines for spectrum tests.

Finally, the same tool can evaluate the performance of RF components and perform fault location tests on antenna feed lines with the addition of a tracking generator and appropriate software. This means that one instrument can be used throughout the buildout and can eliminate the need to purchase dedicated distance-to-fault solutions.

Network operators may be tempted to put off the investment in testing equipment until well after the network is functional. After all, in many cases the base station manufacturer delivers a functioning product to the site.

The initial commissioning phase, however, is the ideal time to take baseline performance measurements in the field—not only for the base station but for the antenna and feed line system. With a comprehensive set of baseline measurements, degradation can more easily be tracked over time. Network operators can then undertake preventive maintenance before a problem becomes severe enough to reduce system quality.

The benefits of a plan for RF testing throughout the network life cycle are greater network up-time and fewer customer complaints. Appropriate planning for testing procedures beginning early in the network buildout phase can contribute to a more stable network and help ensure an economical investment in testing equipment.

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